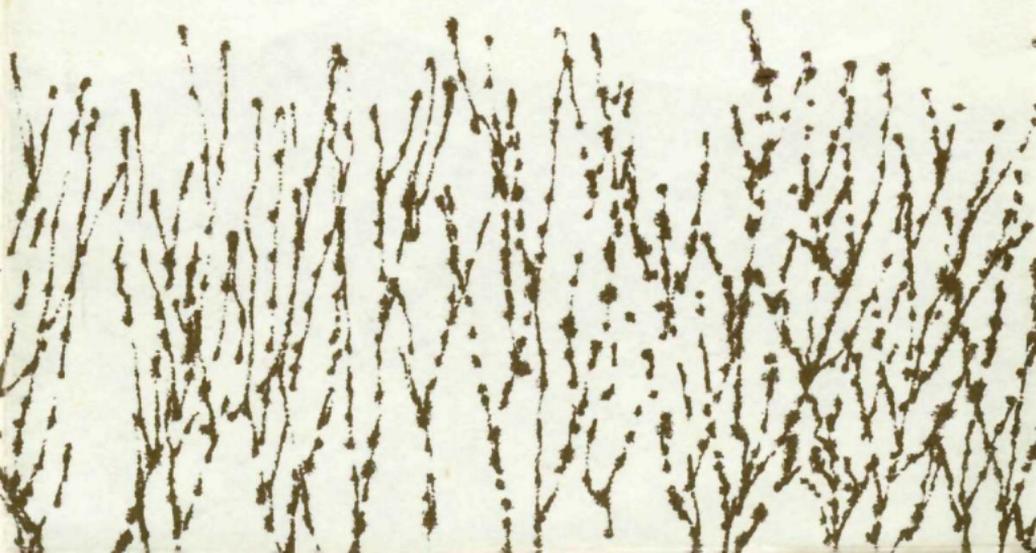
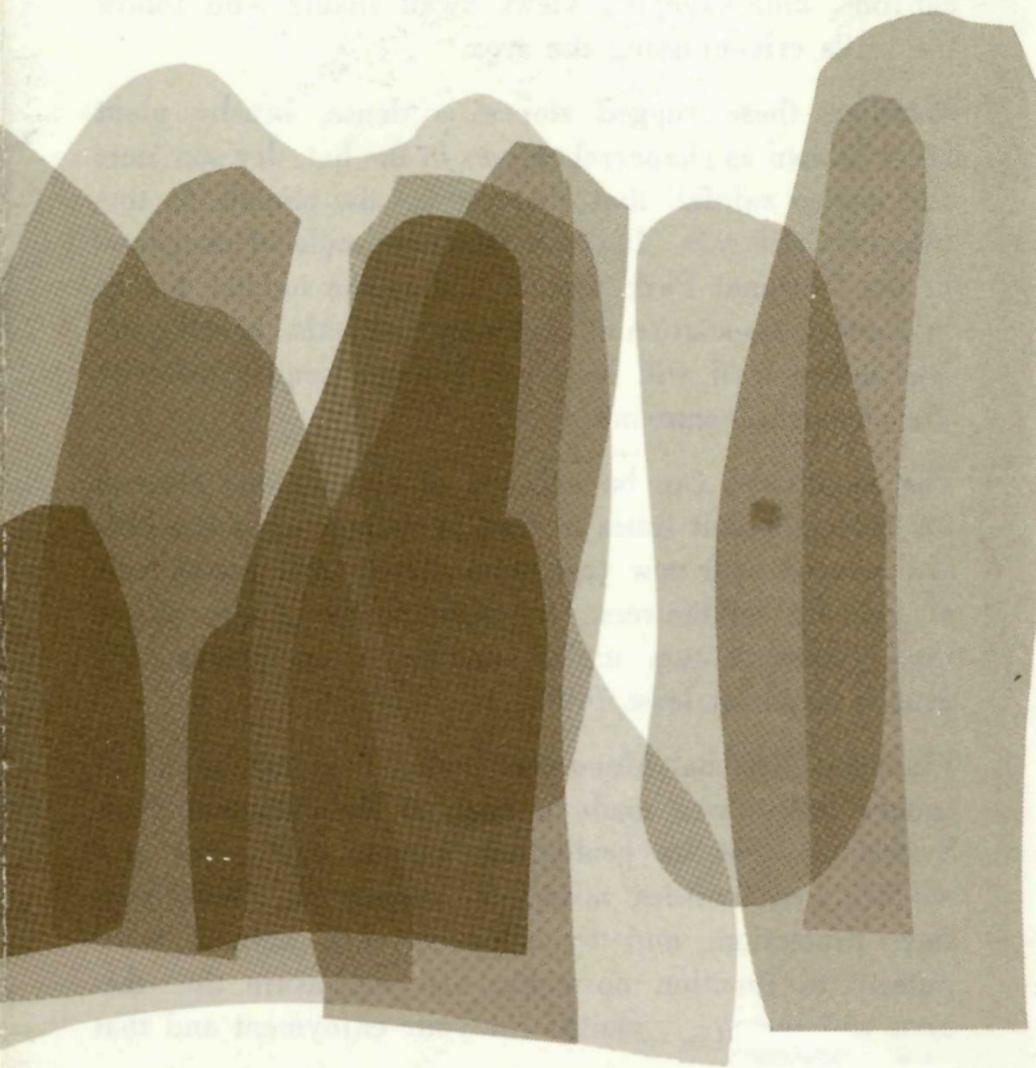


PINNACLES

NATIONAL MONUMENT • CALIFORNIA

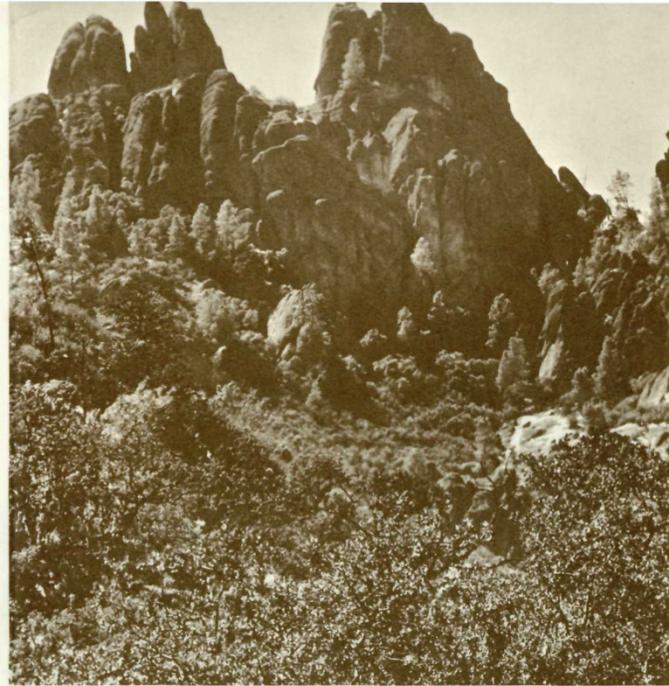


HERE THE LAST REMNANTS of an ancient volcano, carved into spectacular pinnacles and spires by rain, wind, heat, and frost, rise against the sky. This cluster of jagged peaks—a result of ages of relentless erosion and change—contrasts strikingly with the smooth contours of the surrounding country. Caves, watered canyons, and sweeping views await hikers who follow the trails criss-crossing the area.

Mantling these rugged slopes, a dense, brushy plant cover known as chaparral thrives in the hot, dry summers and sparse rainfall that characterize the climate in this part of California. It is the finest example of chaparral in the National Park System and is the habitat for an interesting association of plants and animals. A self-guiding nature trail will help you become acquainted with this chaparral community.

The monument can be enjoyed at any season. One of the most pleasant times to visit is spring, when the hills are covered with new vegetation dotted with a multitude of colorful wildflowers. In summer the grassy slopes turn golden brown under daytime temperatures that usually reach at least 100°.

Pinnacles National Monument, today covering about 23 square miles, was made a part of the National Park System so that its geological features and plant and wildlife communities might be conserved. Only with such protection, and by allowing each natural community to function normally, can we insure that this area will remain unspoiled for your enjoyment and that of future generations.



AND THE EARTH SHOOK . . .

The geological story behind the pinnacles formation goes back some 30 million years. It is a relatively simple story of the building up and tearing down of a gigantic volcano, and of the earth's sinking between two faults.

The action began when millions of tons of molten lava poured from fissures some 5 miles long. These flows formed a domelike mountain that is believed to have reached about 8,000 feet in elevation, over three times the height of the pinnacles today. Slabs of the cooling outer layers of this lava mountain continually broke away to form talus slopes of huge blocks of rock, which later were to take part in formation of the caves.

At times the viscosity of the lava increased and the weight of the extruded mass plugged the fissures. Steam and gas pressure then built up within the mountain, culminating in tremendous explosions that sprayed liquid lava and rock fragments into the air. The material fell as volcanic dust and ash in which the pieces of rock were imbedded. This mixture—volcanic breccia when consolidated—is a common rock along the trails today.

As active volcanism gradually subsided, faulting and cracking of the earth and water erosion began to play

more important roles. Two large faults developed which closely follow present monument boundaries—the Chalone Creek Fault on the east and the Pinnacles Fault on the west. Both are considered splinter faults off the great San Andreas Fault, just 6 miles east of the monument.

The large block of earth between the two faults dropped downward and tilted several degrees to the west. The resulting slant to the layers of volcanic material is evident throughout the monument and especially along the trails.

In both Bear Gulch and the Old Pinnacles, covered canyons or caves were formed where large resistant blocks slid down to become wedged between the narrow walls of the canyon.

During the period of faulting and tilting, stresses caused by warping and uneven movements produced vertical cracks and joints throughout the area. Along these fractures occurred most of the weathering and erosion that shaped the pinnacles.

The geologic story of the pinnacles has not ended. Volcanic activity ceased millions of years ago, but earth movement, as demonstrated by frequent earthquakes, and erosion still work slowly and persistently today.



A night rambler, the raccoon (right) finds good pickings in campgrounds. A more obvious sight are the orange blossoms of bush monkeyflower, conspicuous in spring along trails and roadsides.



DRY, LEATHERY-LEAVED SHRUBS . . .

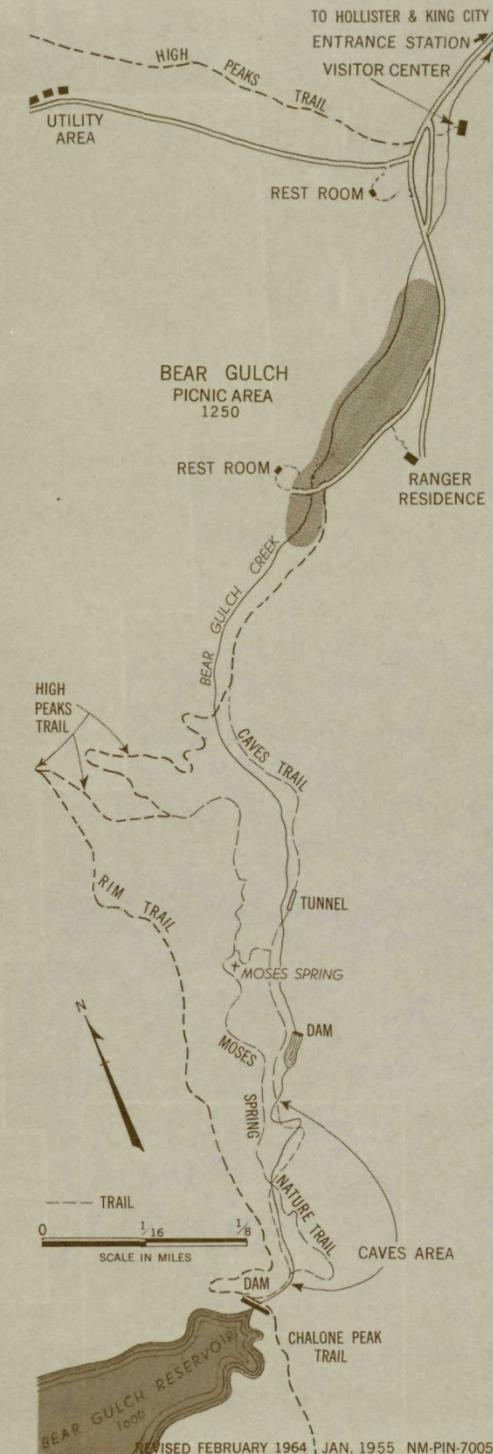
The Pinnacles region receives a light annual rainfall of about 15 inches, mostly during winter and early spring. This is followed by a long, hot, dry summer and autumn. Consequently, the forest that results consists of stiff-branched, dry, leathery-leaved shrubs called *chaparral*. These plants have many of the water-saving characteristics of desert vegetation and often grow to large size, simulating trees in shape and form. Thus, chaparral is sometimes referred to as a pygmy forest. At Pinnacles it is composed chiefly of greasewood chamise, mixed with smaller amounts of manzanita, buckbrush ceanothus, and hollyleaf cherry.

Aside from climate, an important factor controlling the vegetation is wildfire. For thousands of years fire has repeatedly swept this region. Only plants that can tolerate frequent burning have been able to survive. These have adapted in several ways. Some sprout from a large root crown after fire has destroyed the rest of the plant. Others produce seeds which are stimulated to germinate by the heat of the fire that kills the parent plant.

Suppression of wildfire by man in this century has allowed some less resistant species to become established. Digger pine, one of these, is gradually spreading and may someday replace the chaparral.

Chaparral is important because its plant roots hold the soil on steep hillsides and the foliage provides vital food and shelter for wildlife. Many animals make their homes in this plant community. They are often small and dull-colored to match the dwarf forest. Much in evidence during the breeding season, animals become more retiring as the vegetation dries out in late summer.

Of the larger mammals, black-tailed deer are often seen, whereas the gray fox and bobcat, also quite common, are nocturnal and secretive. Rabbits and rodents are common and provide food for some of the larger predators. Bats of several species patrol evening skies in search of insects. The more frequently seen birds include California woodpecker, brown towhee, California quail, and turkey vulture.



High Peaks Trail: The high point of a visit to Pinnacles is a hike along the High Peaks Trail through the spires of the Pinnacle Rocks. This loop trail can be started either at the visitor center in Bear Gulch or at the parking area at the upper end of the Bear Gulch Picnic Area. Gaining about 1,300 feet in elevation, the hiker is rewarded with panoramas of the entire monument. The total trail distance is about 5 miles. Allow 3 to 4 hours for the round trip.

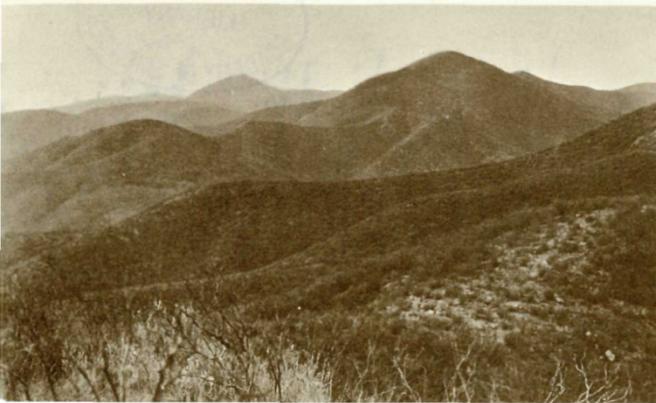
Chalone Creek Trail: Another way to hike through the Pinnacle Rocks is to take the Chalone Creek Trail from Chalone Creek Campground. It connects with the High Peaks Trail about 2 miles from the campground.

Chalone Peak Trail: This is a fairly strenuous 8- to 9-mile round trip from Bear Gulch to the top of North Chalone Peak, where the monument's fire lookout is located. Starting on the Caves Trail and continuing beyond Bear Gulch Reservoir, the trail wanders uphill through dense stands of chaparral and provides an excellent distant view of the Pinnacle Rocks.

Caves and Moses Spring Nature Trail: The Caves Trail follows the bottom of Bear Gulch canyon through dark passages beneath gigantic boulders wedged between the canyon walls. The trail is lighted, but a flashlight may come in handy. The Caves Trail is the beginning of the self-guiding Caves and Moses Spring Nature Trail. A leaflet is available at the start of the trail. Keyed to numbered stakes along the way, it points out features of interest. The stakes continue on the Moses Spring Trail, along which you can return to the parking area in Bear Gulch from the reservoir. This is a shaded path along the canyon wall above the caves. The 1-mile round trip is an easy and fascinating hike.

Rim Trail: Connecting the High Peaks Trail with the Caves and Moses Spring Nature Trail at the reservoir, this trail follows a scenic route along the rim of Bear Gulch canyon. Taking this trail you can return to the parking area from the reservoir or continue up through the Pinnacle Rocks from its junction with the High Peaks Trail.

Balconies Trail: Joining the Old Pinnacles Campground and the West Side Campground, this trail traverses the slope at the base of the Balconies. The views of the Pinnacle Rocks from the West Side Campground are especially good. This is a hike of about 2 miles, round trip.



ABOUT YOUR VISIT

Pinnacles is about 35 miles south of Hollister and a short distance off Calif. 25. It can be reached from the south through King City. The entrance to the west side of the monument, from U.S. 101 at Soledad, is not a through road. Travel by car to the visitor center at Bear Gulch is not possible from that direction.

There is an entrance fee of 50 cents for a 15-day permit or \$1 for an annual permit.

Picnicking and camping. Campsites for trailer and tent camping are available in the monument. There are no utility connections. Water and modern comfort stations are accessible, and each campsite is provided with a fireplace and table. Camping and fires are permitted only in the campgrounds. Bring your own fuel, and do not cut or gather firewood. Use extreme care with smokes and matches.

The nearest store and service station is at Paicines, 23 miles to the north.

Organized groups must make advance camping arrangements.

Naturalist services. You should make the visitor center your first stop. It is about 2 miles from the east entrance and contains a small museum. Post cards and colored slides, as well as checklists and trail maps, are available there. A park naturalist is on duty to interpret the geological and other natural features of the monument. Evening talks are presented on summer weekends.

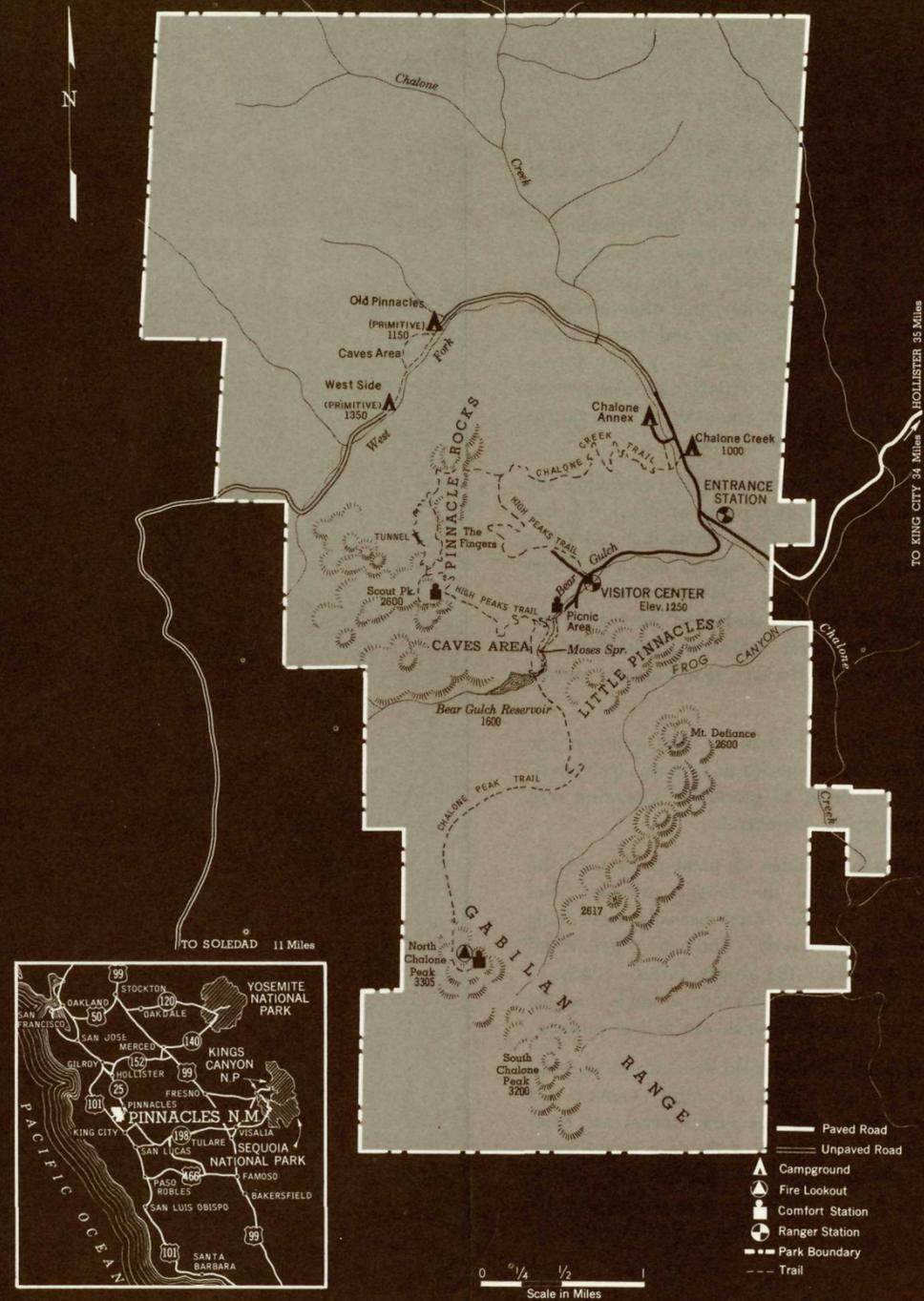
Hiking is popular in the park, and you are encouraged to use the more than 15 miles of trails. Many scenic features not accessible or visible by road can be reached by trail. Motor vehicles of all kinds must remain on roads. Trail damage is minimized by avoiding shortcuts and hiking only on the trails. Drinking water is available only at park headquarters or in the developed camping and picnic areas.

Pets are permitted in the park if on leash, caged or otherwise under physical control at all times. They are not permitted to run loose and must not be taken on trails, into buildings, or into areas where people customarily gather.

Park rangers are here to assist you and to enforce regulations. If you need information or help, ask them.

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Scale in Miles 0 1/4 1/2 1
 SEPT. 1946 REV. FEB. 1964 NM-PIN-17004

Help us protect this monument. All objects in the monument—rocks, wildflowers, trees, and animals—must be left in place and undisturbed so that others, too, may enjoy them. Gathering specimens or collecting souvenirs is prohibited. This protection is a matter of law; it is also a matter of good citizenship and consideration for others.

ADMINISTRATION

Pinnacles National Monument, established on January 16, 1908, is administered by the National Park Service, U.S. Department of the Interior.

The National Park System, of which this area is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of its people.

A superintendent, whose address is Paicines, Calif. 95043, is in immediate charge of the monument.

AMERICA'S NATURAL RESOURCES

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.



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